What Our Elders Say...



k Summary

This lesson links the traditional ecological knowledge of Aboriginal peoples with the study of biodiversity, incorporating environmental learning and drama through a traditional Iroquoian legend.

Activity Info





Level: Grade 4

Subject: Life Science, Habitats and Communities, Drama, Language Arts

Estimated Duration: 45 to 60 minutes for story and discussion, 90 minutes for rehearsal and performance

Materials: paper, cardboard, markers, poster paints

Learning Outcomes

Students will:

- Explore the link between meeting basic needs and habitat.
- Explore the dependency of organisms on their habitat as well as on the relationships within that habitat.
- Describe adaptations of plants and animals that demonstrate a response of living things to their environment.

Teacher Background

The traditional teachings and oral history of Aboriginal peoples in Canada include many stories that can be used to teach people about biodiversity, ecology and symbiotic relationships (how species rely upon one another). In fact, for thousands of years, Native people have taught their children and their communities many of life's basic survival skills and lessons learned through observing and living with nature. Their traditional way of life involves a very close

relationship with the natural environment which gives them an intimate understanding of biodiversity, ecology and symbiotic relationships between species.

Native people often use natural metaphors to teach human lessons. For example, turtles teach people to slow down so they can see everything along life's path. Running like a rabbit through life means missing many important gifts and opportunities along the way. The otter teaches people to be playful and to find humour and fun in all of life's challenges. The wolf teaches about family, loyalty and working together. The birch tree teaches humbleness and beauty while the oak tree shows inner strength.

Native people understand how plant and animal species depend on each other (symbiosis). They have learned how predator and prey relationships keep populations in balance. For example, when the groundhog populations increase, so does the coyote's. But when the groundhog numbers decrease, there is less food for the coyote, so their numbers decrease as well.

They understand that some tree species, such as jack pine and lodgepole pine, are the trees that grow in after a forest fire (the cones of these pine trees need the heat from a fire to release seeds from their cones).

Many of these traditional teachings were passed down through the generations in stories and legends. One such story is The Legend of the Sky Sisters.

Procedure

Step 1

Read *The Legend of the Sky Sisters* to your class. If possible, have the students sit on the floor in a circle to encourage sharing of their ideas after the story is complete.

Step 2

Ask students what they believe is the lesson shared in the story. Students will most likely explain that the three plants need each other



to survive. Explore notions and concepts, such as:

- **Symbiosis** each plant needs the other to provide something that they need. Are there other plants or animals that might depend on these three species?
- **Habitat and Niche** each plant has similar habitat requirements but there are a few simple differences. What are the similar and different requirements (soil, climate, etc.) for corn, bean and squash?
- **Interdependence** each plant can survive, but they are inextricably linked to one another. What happens if one of the plants disappears? How does it affect the other plants? Does it affect the community?

Step 3

Explain to the students that they will be putting on a five-minute skit of the story. Write a list of all the roles on the board. Consider the following: The three Sky Sisters, one person to plant seeds, village people, a director and perhaps a narrator.

Step 4

Lead a discussion about the parts of the play. Have the students describe what they will need to do to act out the play:

- Introduction village people starving, arguing, stealing food
- Sky Sisters Arrive each is planted, each depends upon the other
- Village is Happy what is the lesson learned?

Step 5

Divide the students into groups so that there are five to seven students per group. The Director will make the decisions about what will be acted out and will make sure that the environmental lesson is clearly described to the audience.

Step 6

Ask the students to consider what kinds of props they will need to create or build for their play. Provide each group with paper, cardboard, markers, tape and poster paint, along with any other simple prop making materials.

Step 7

Have each group perform their version of the play. It is important that each of their presentations incorporate an environmental message to illustrate their understanding of the story.



- Go for a nature hike. Ask students to find an environmental lesson that could be described in a story like The Legend of the Sky Sisters. Have the students write their own legend.
- Have students create other stories to explain ecological concepts. Consider the following:
 - **Habitat:** Explain why each species has its own specific habitat requirements.
 - **Biodiversity:** Why is it so important?
 - Species at Risk: Explain how or why some plants or animals may be at risk.
- A number of Canadian Model Forests integrate Aboriginal peoples' knowledge and perspectives into forest management planning. Have your students visit several Model Forest Web sites and describe the different ways that traditional knowledge is being used.

Model Forest Network www.modelforest.net.

Refer to these books for more traditional stories:

Caduto, Michael J. Keepers of the Animals, Fulcrum Publishing; Colorado, 1991. (ISBN 0920029881)

Caduto, Michael J. Keepers of Life. Fifth House Publishers; Saskatoon, 1994. (ISBN 1895618487)



The Legend of the Sky Sisters A Traditional Iroquoian Legend

Many moons ago, the Native people of this land were starving. The reason was not only lack of food but also because they could not work together for the little food that was available. Brothers would argue and steal from one another in order to provide for their own families. They would cheat, ignore one another's pain and refuse to help in times of danger.

Three Sky Sisters came down to live with the tribe. The first Sister's name was Corn. She stood tall and straight in the fields around the village, but the hot sun dried

her feet and made her suffer. In addition to that, the earth grew less nourishing each year she stood there.

Her Sister, Squash, laid herself at Corn's feet and protected her Sister by keeping the soil cool and moist. It was difficult, however, for Squash to receive any moisture. Corn's straight leaves caught the rain and funnelled the rainfall to the centre for her to drink. In order to help her Sister Squash, Corn relaxed the ends of her leaves to allow a portion of the rain to fall to the ground.

> The third Sister, Bean, was so weak and thin that she could not support herself, at all. She could do something very special, however. She could make her own nourishment in the soil, and this food became valuable for all three of the Sisters. Corn stood tall and allowed Bean to grow up towards the sun. Soon, all three of the Sisters were growing

> > The people of the village saw that it was good. Not only did they have plenty of food because Corn, Bean and Squash were growing so strongly, but they also saw what it meant to work together. When each Sister helped the others, the weakness of each was no longer important.

> > > The tribe recognized that this was a necessary lesson for their people.

> > > > To this day, the Native people of this land place the seeds of the corn, squash and bean together in the same soil, remembering the lesson that the Sky Sisters brought to the earth.